

WAVEFORMS

CHIMES SYNTHESIZER

AUDIO AMP

CHIMES SYNTHESIZER

PROGRAM ENCODER

NOTE FREQUENCY SYNTHESIZER

VOLTAGE REGULATOR

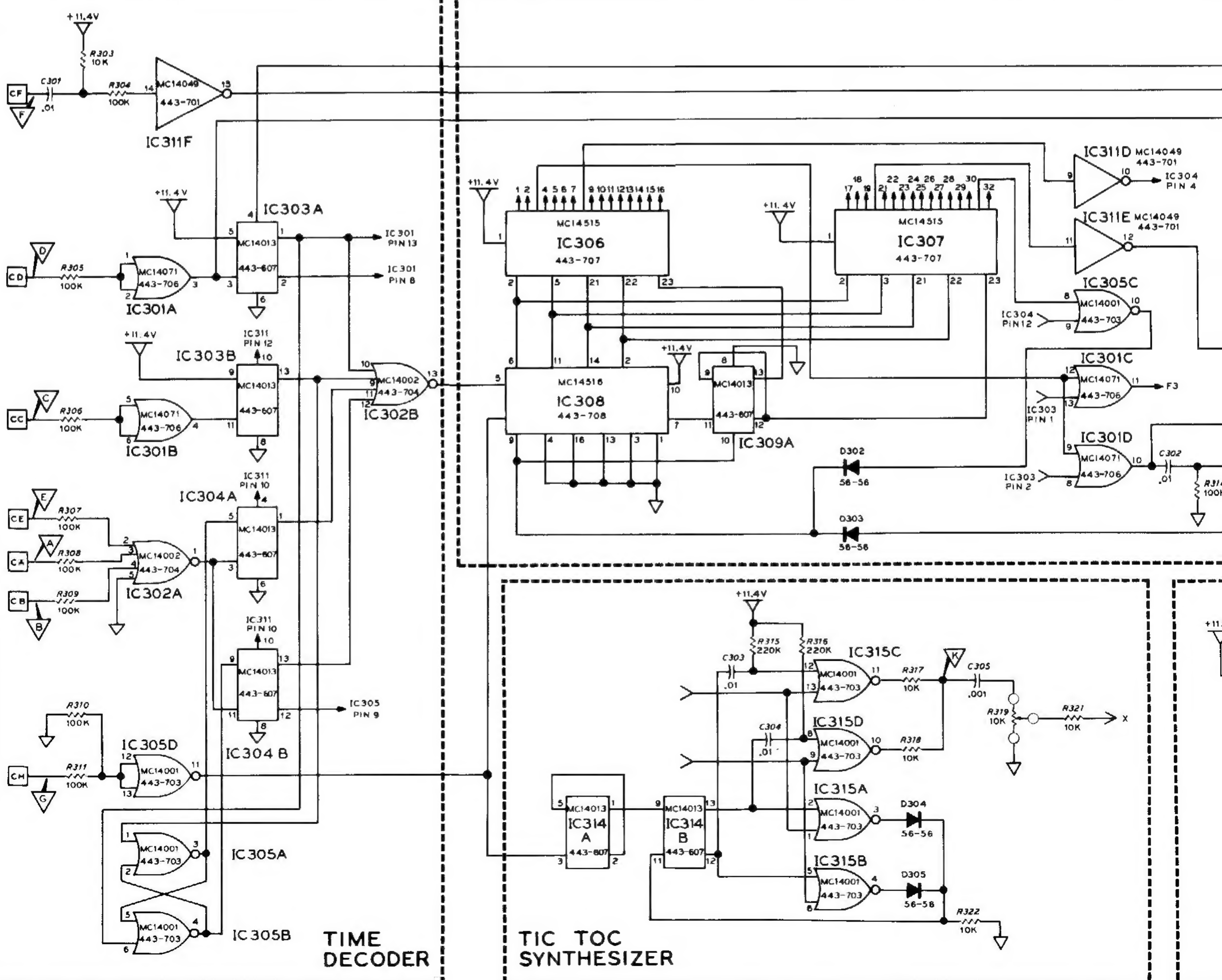
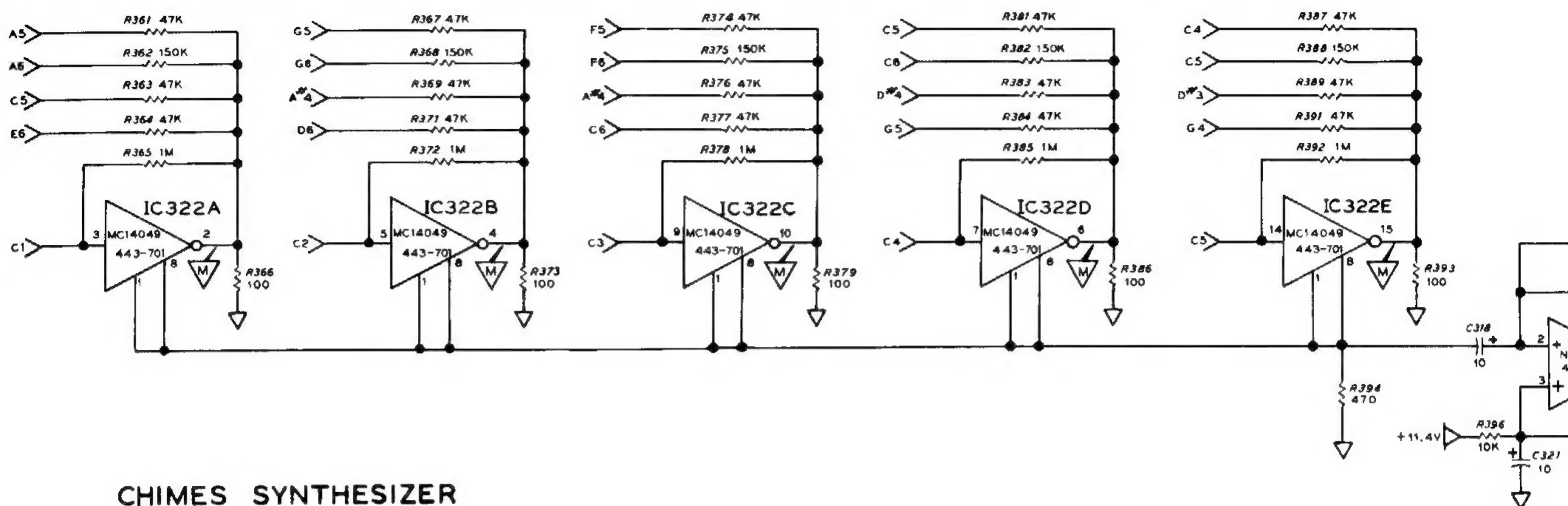
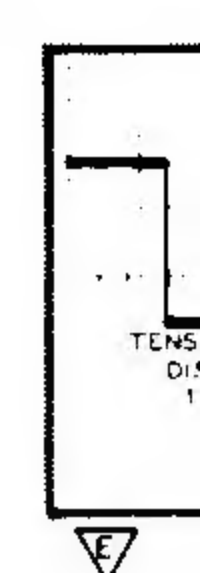
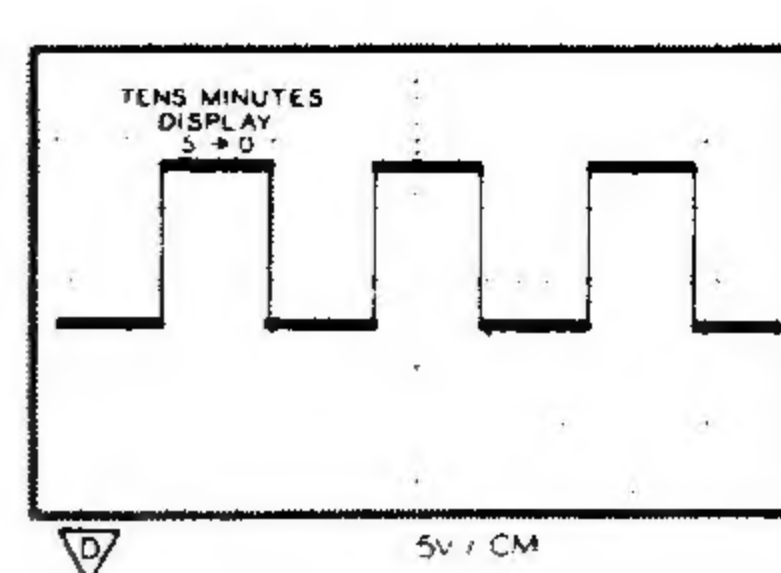
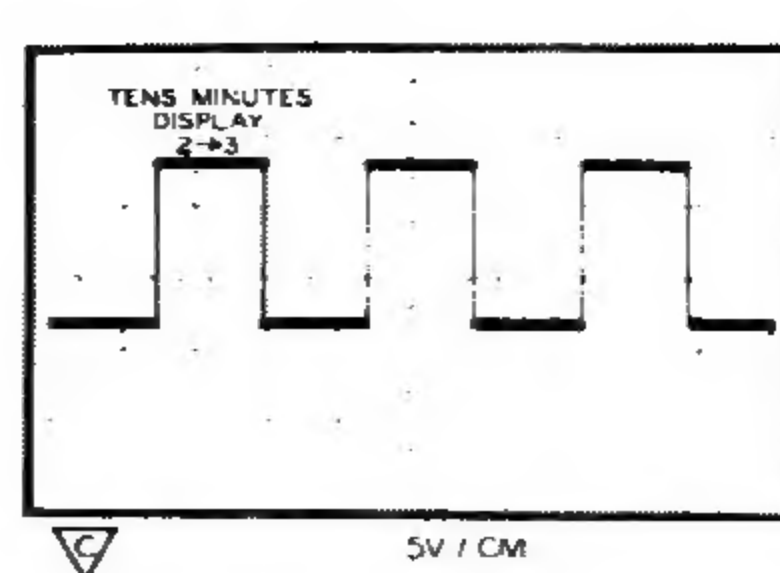
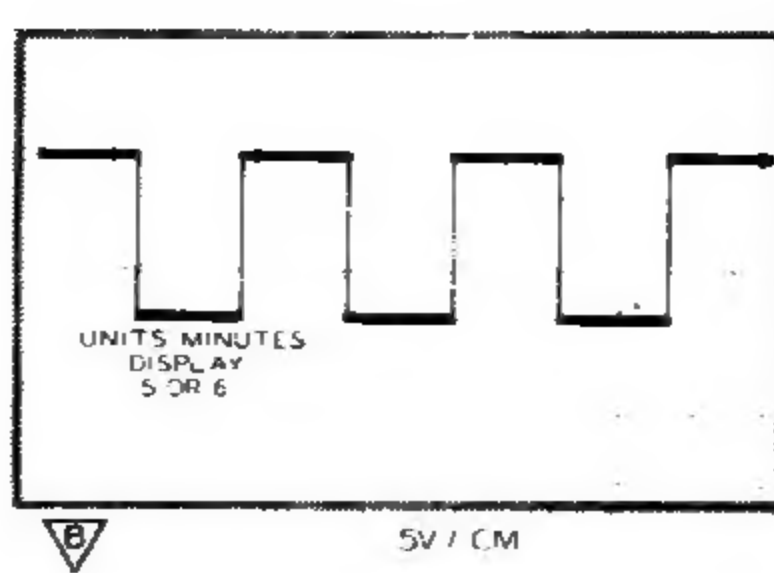
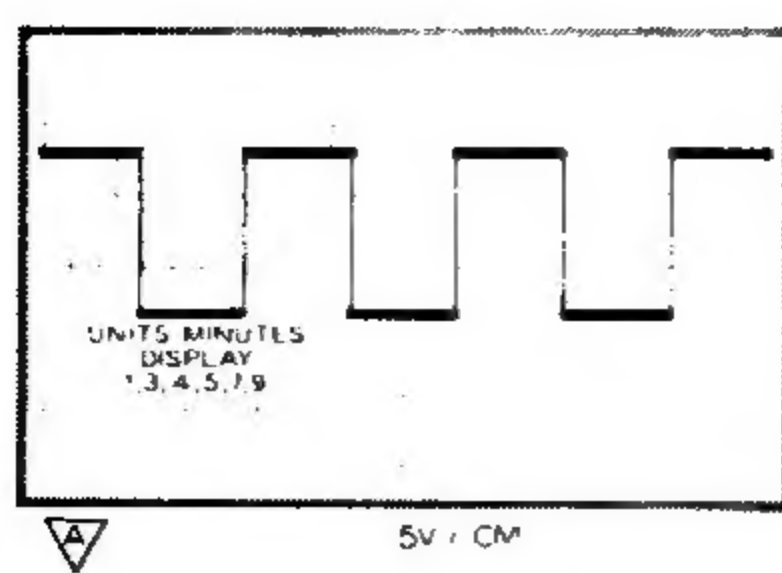
SCHEMATIC OF THE  
HEATHKIT®  
ELECTRONIC  
CLOCK CHIMES  
MODEL GCA-1195-1

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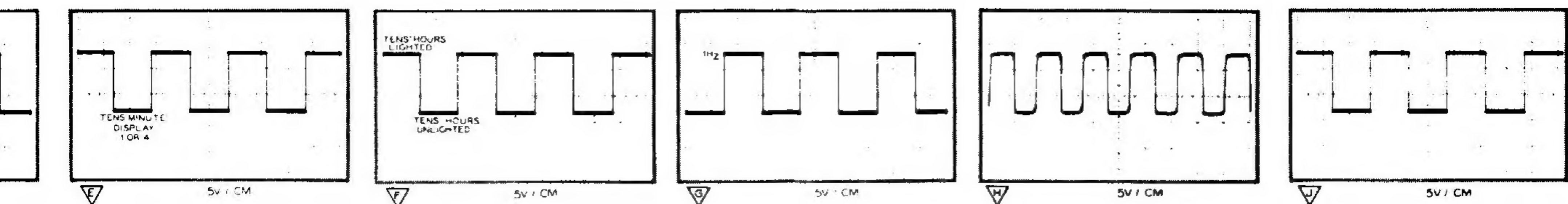
TEST  
CIRCUIT

- NOTES:
- ALL RESISTORS ARE 1/2-WATT, UNLESS MARKED OTHERWISE. VALUES ARE SHOWN IN OHMS (K=1,000, M=1,000,000).
  - CAPACITOR VALUES ARE SHOWN IN MICROFARADS, UNLESS MARKED OTHERWISE.
  - SYMBOLS: □ LETTERED CIRCUIT BOARD HOLE.  
▽ CIRCUIT BOARD GROUND.  
▽ WAVEFORM.
  - WAVEFORM J IS TYPICAL OUTPUT OF IC'S IN NOTE FREQUENCY SYNTHESIZER.
  - WAVEFORM L IS TIC-TOC SYNTHESIZER OUTPUT.
  - WAVEFORM S IS EXPANDED VIEW OF A SINGLE CHIME NOTE.
  - WAVEFORM T IS COMPOSITE VIEW OF A SINGLE CHIME NOTE.

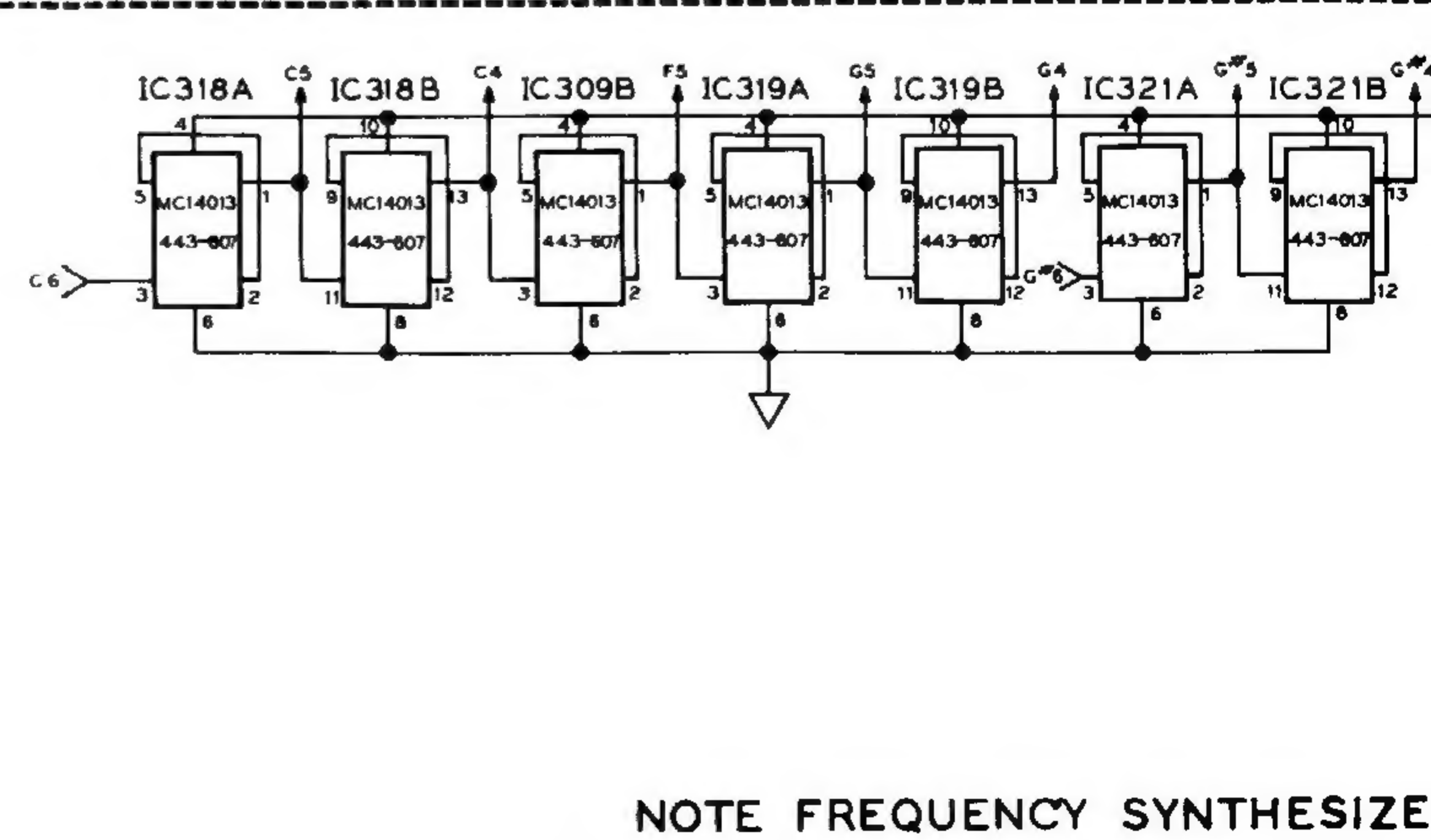
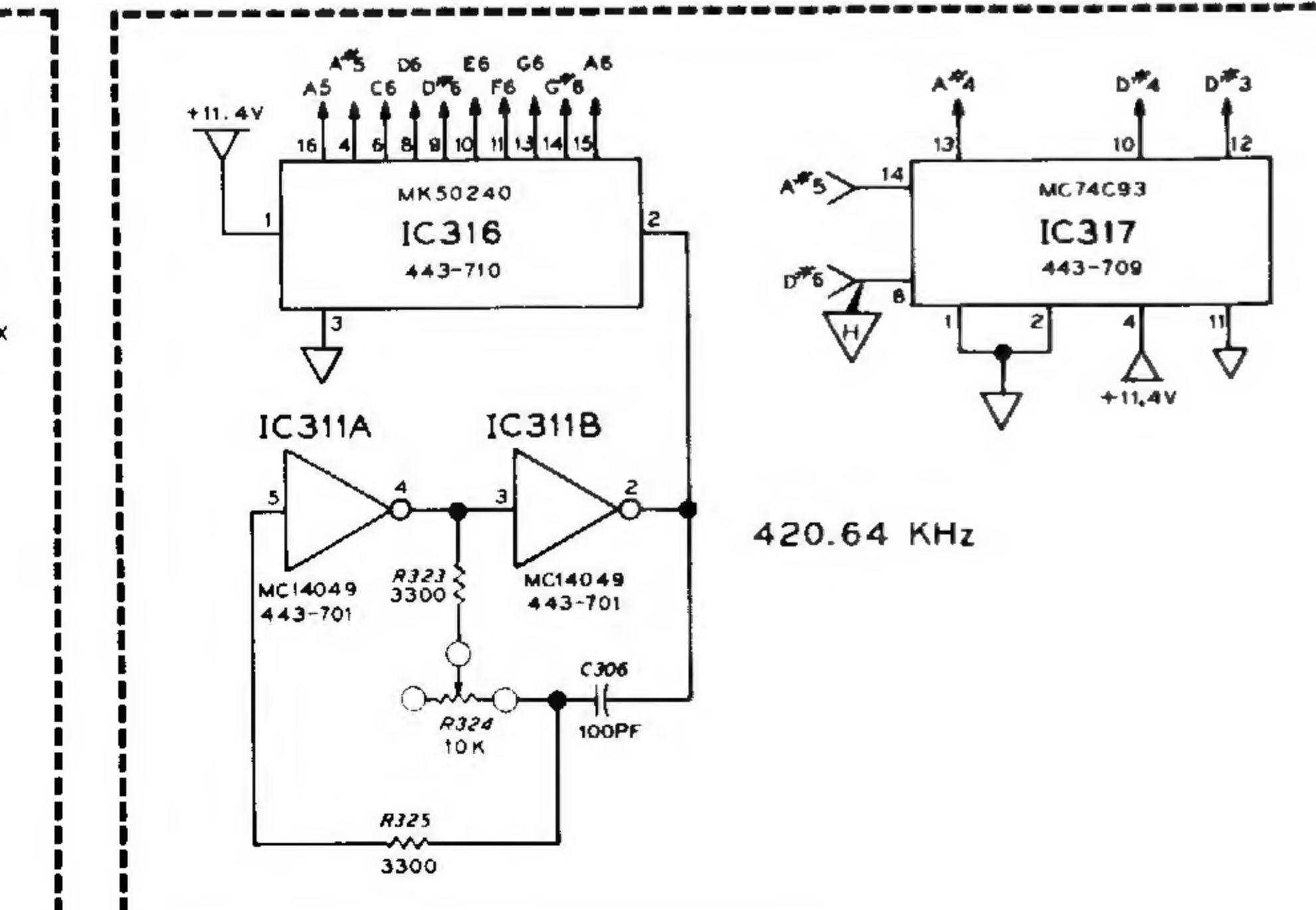
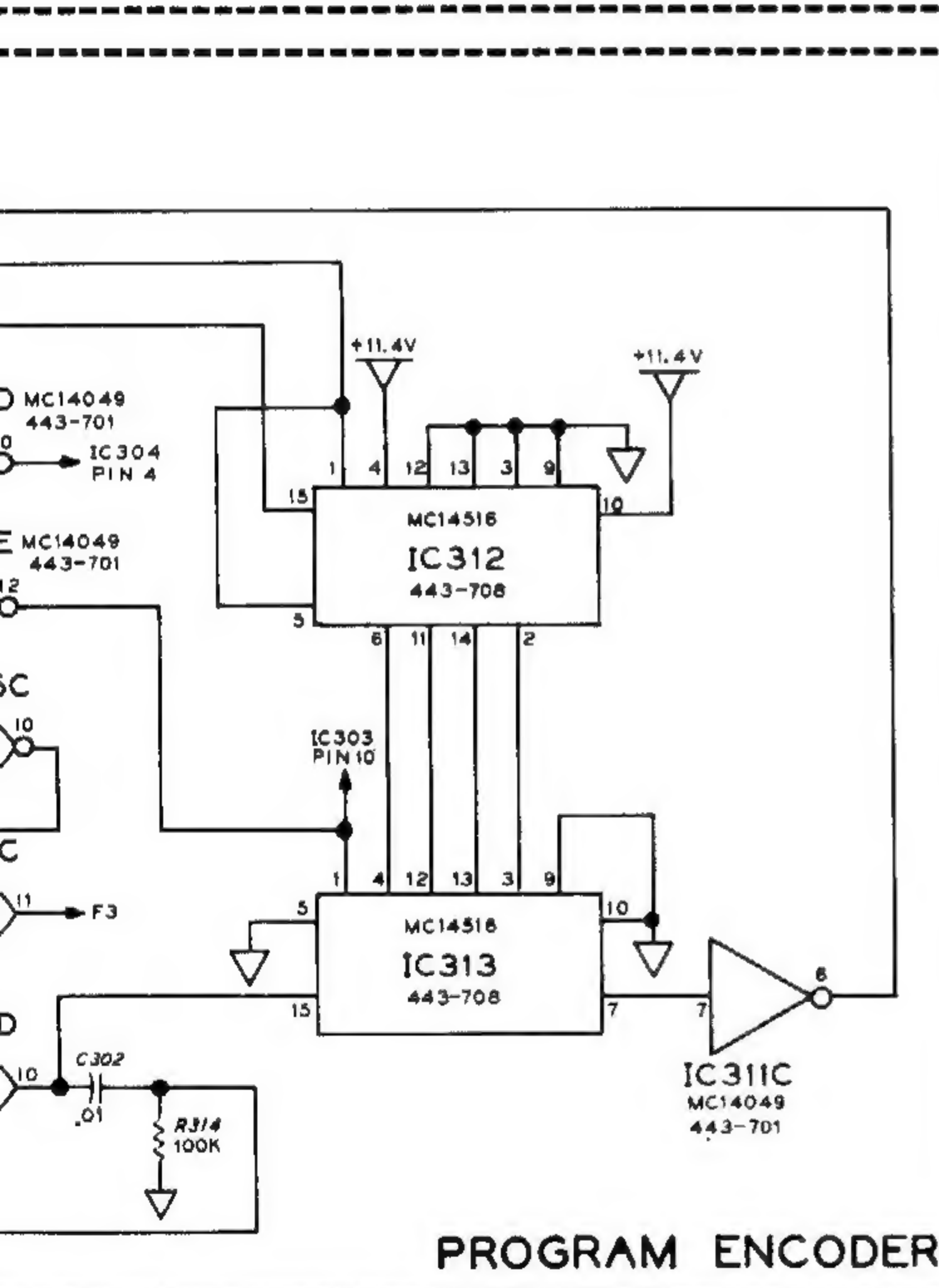
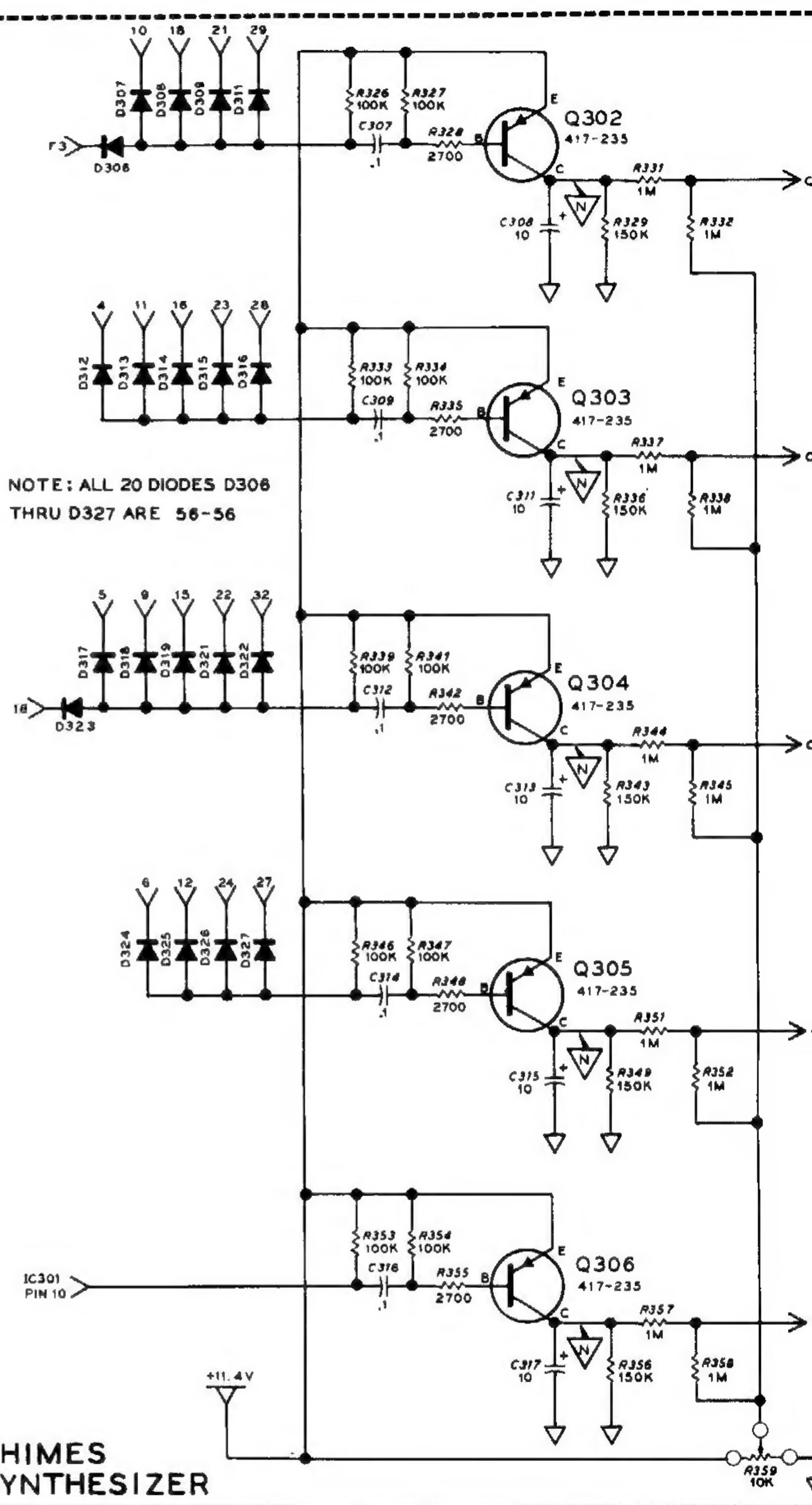
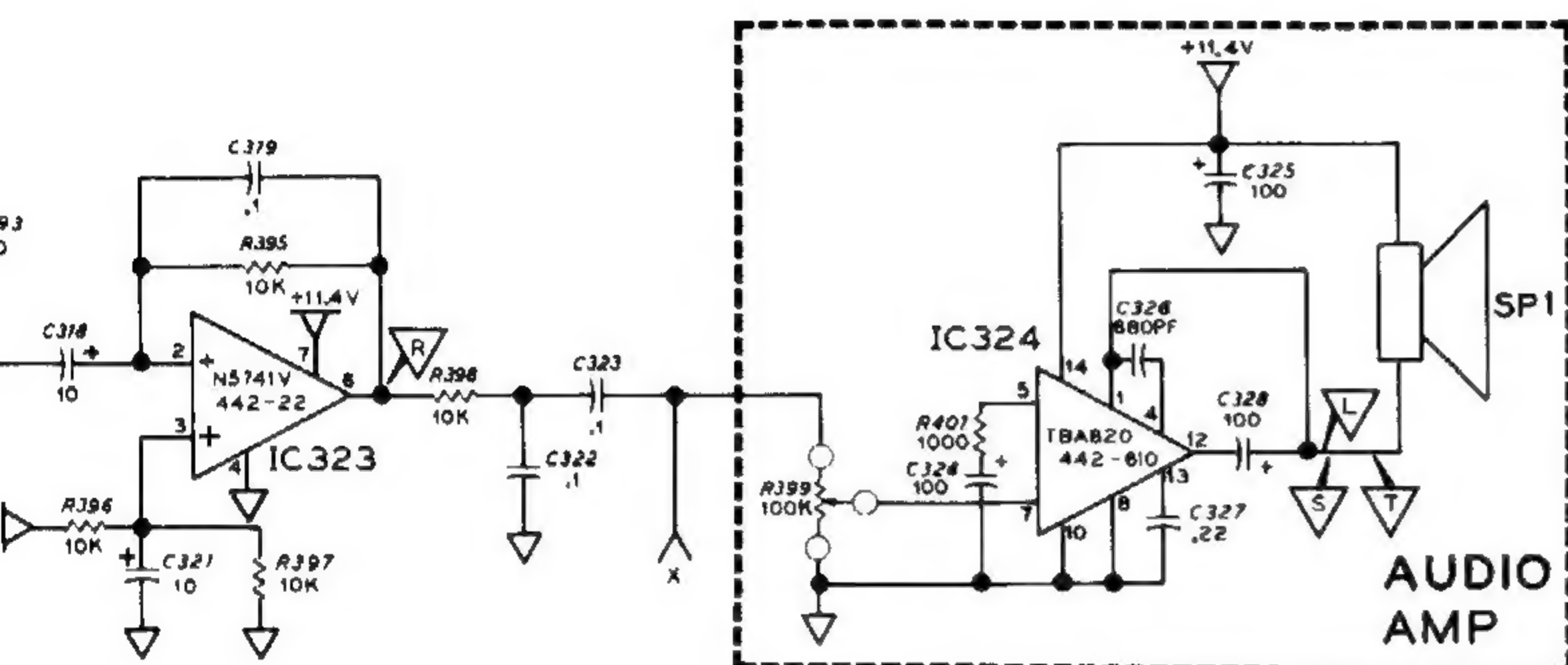




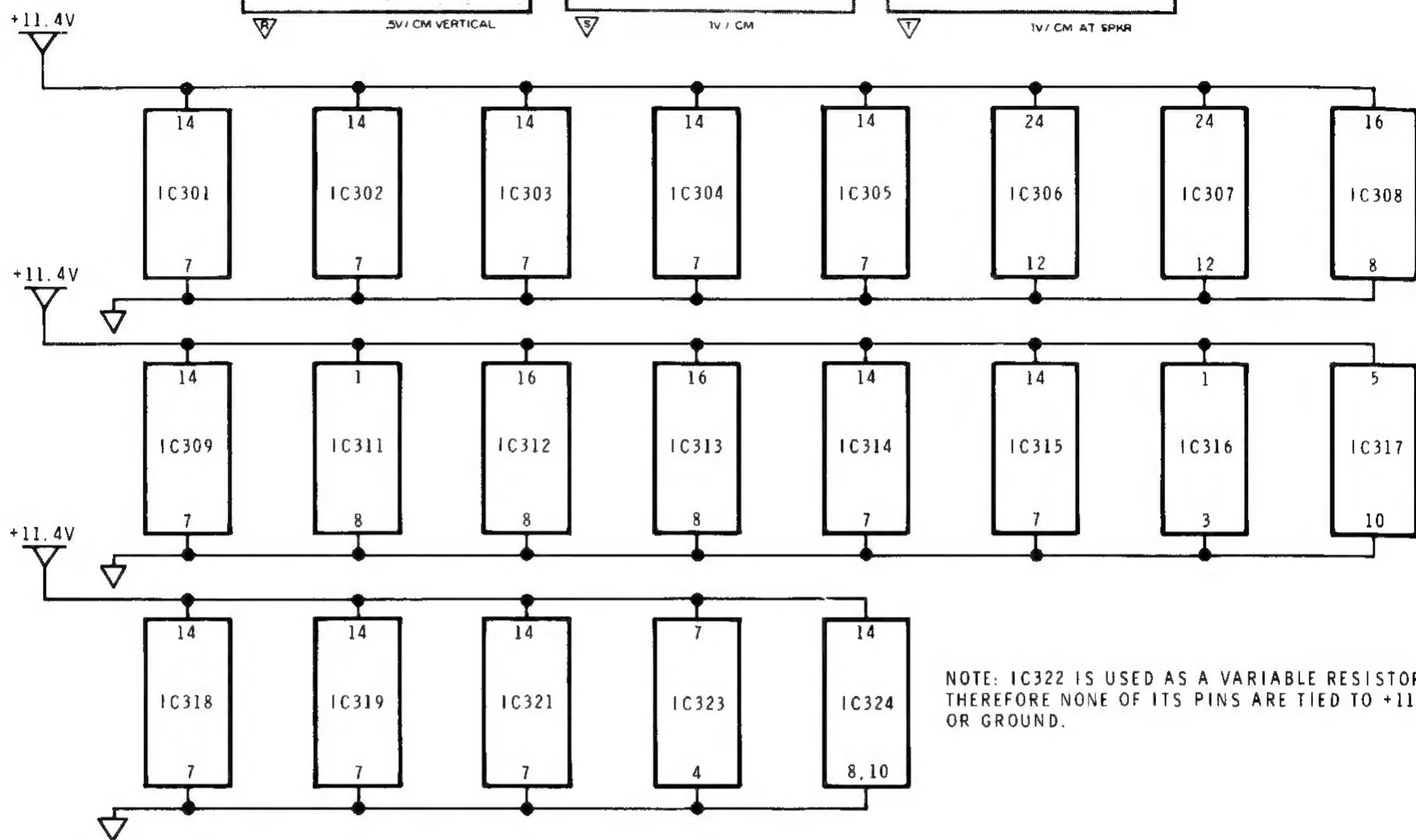
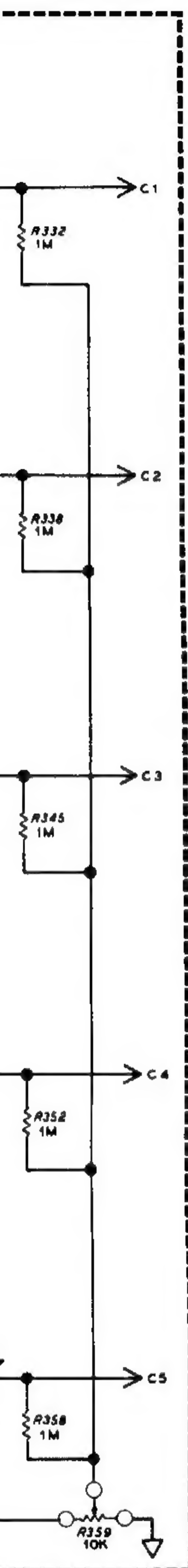
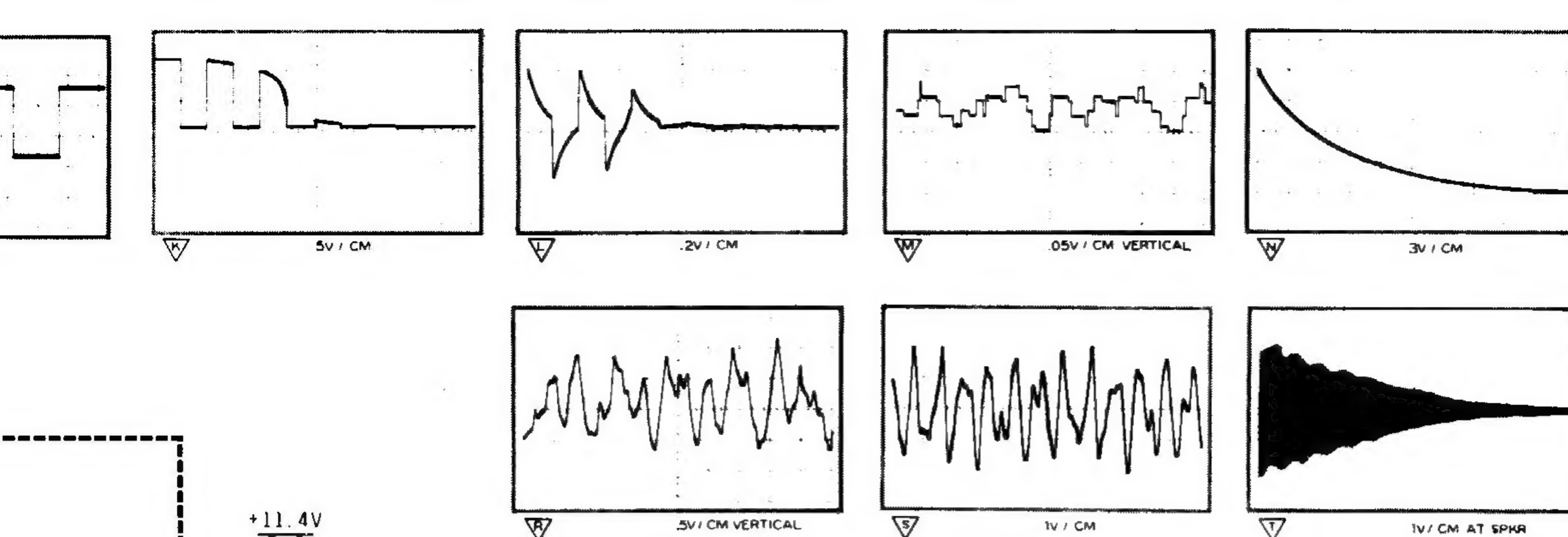




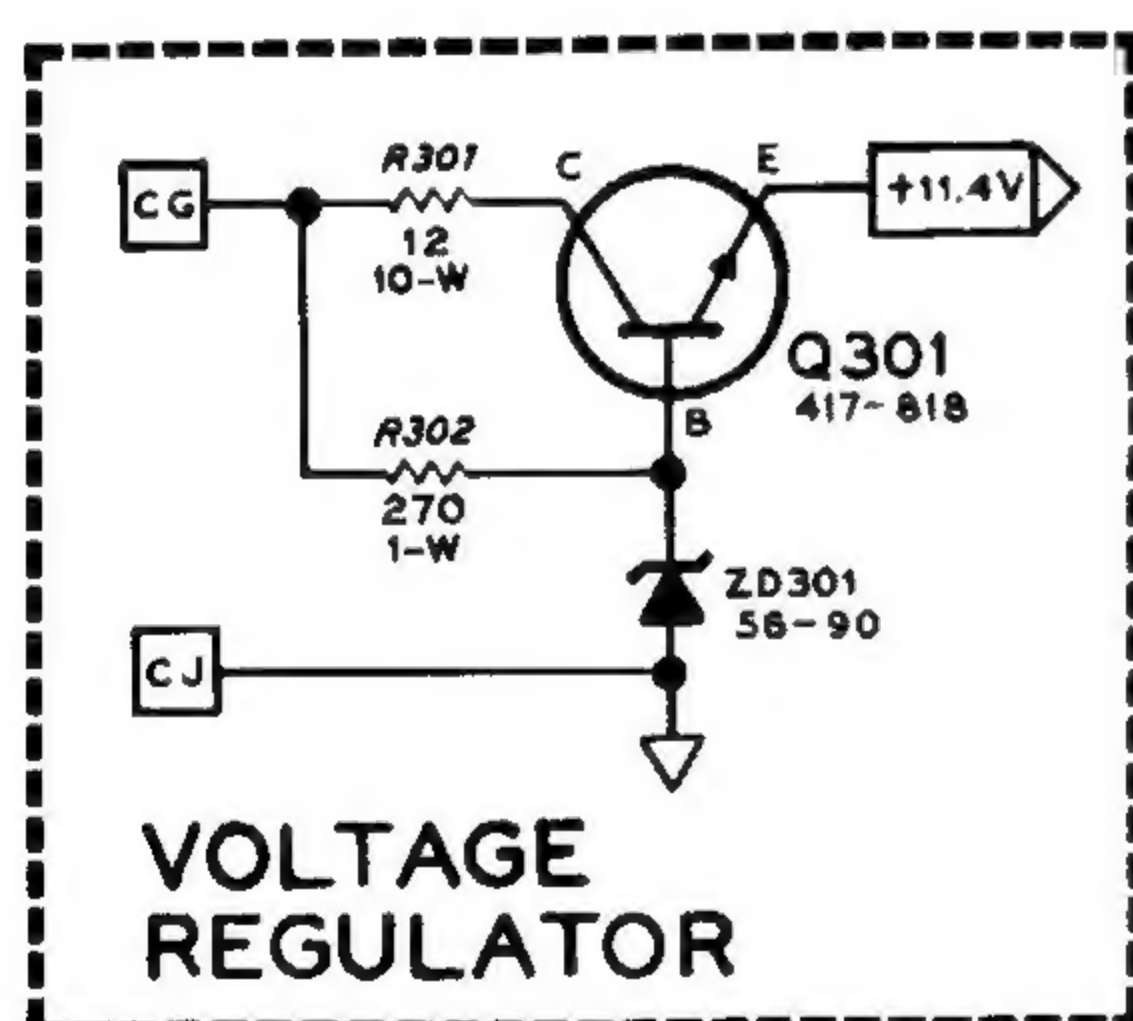
WAVEFORMS





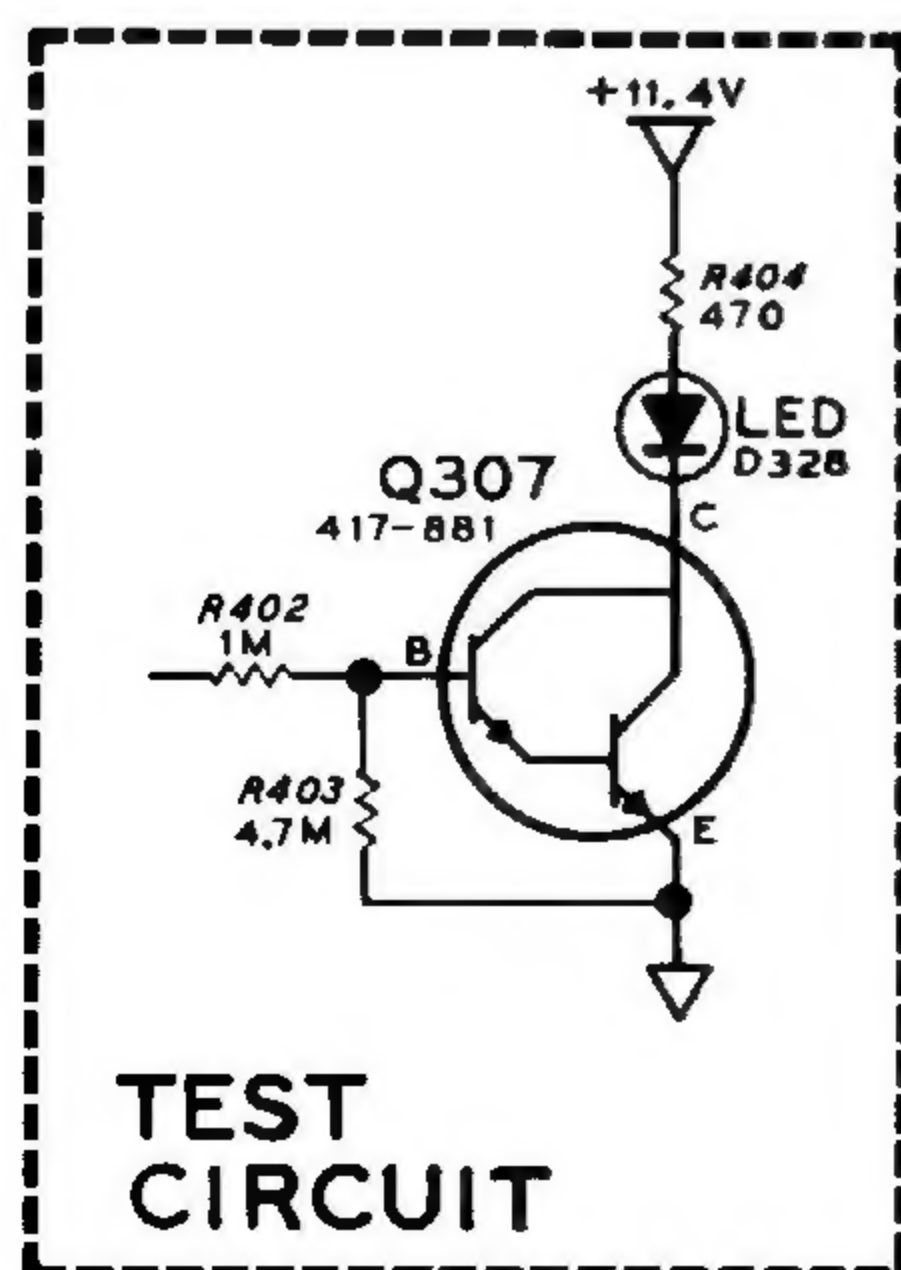


NOTE: IC322 IS USED AS A VARIABLE RESISTOR; THEREFORE NONE OF ITS PINS ARE TIED TO +11.4V OR GROUND.



# SCHEMATIC OF THE HEATHKIT® ELECTRONIC CLOCK CHIMES MODEL GCA-1195-1

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